

IN THE CLAIMS:

Please cancel claims 16 and 17.

Please amend claims 1, 2, 5, 13, and 20 as follows:

1. (CURRENTLY AMENDED) A check valve for a fuel pump comprising:
a valve housing adapted to be disposed in an outlet member of the fuel pump;
a valve seat formed on an interior surface of said valve housing, said valve seat having a generally frustaconical cross-sectional shape;

a valve member disposed in said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member, said valve member having a hub with a generally hemi-spherical shape and an annular groove extending radially therein into said hub and a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position; and

said valve member having at least one outlet port a predetermined dwell distance from said valve seat when said valve member is in said closed position and allowing fluid flow past said valve seat when said valve member is in said open position.

2. (CURRENTLY AMENDED) A check valve as set forth in claim 1 wherein said valve member has ~~a hub and~~ a stem extending axially from said hub.

3. (ORIGINAL) A check valve as set forth in claim 2 wherein said valve housing has a passageway extending axially therethrough to receive said stem.

4. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 including a flow tube at one end of said valve housing adjacent said valve seat.

5. (CURRENTLY AMENDED) A check valve as set forth in claim ~~2~~ 3 wherein said valve housing has an enlarged opening at one end of said passageway.

6. (ORIGINAL) A check valve as set forth in claim 5 wherein said valve member has a flange at one end of said stem opposite said hub and disposed in said enlarged diameter portion.

7. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 wherein said valve member has a flow port extending axially therein.

8. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 7 wherein said at least one outlet port extends radially in said valve member and communicates with said flow port.

9. (ORIGINAL) A check valve as set forth in claim 1 wherein said at least one outlet port has a metered shape.

10. (CANCELED)

11. (CANCELED)

12. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 including a spring disposed about said valve member to urge said seal and said valve member toward said valve seat.

13. (CURRENTLY AMENDED) A check valve for a fuel pump comprising:
a valve housing adapted to be disposed in an outlet member of the fuel pump, said valve housing having a passageway extending axially therethrough;

a valve seat formed on an interior surface of said valve housing forming said passageway, said valve seat having a generally frustaconical cross-sectional shape;

a flow tube extending axially from one end of said valve housing adjacent said valve seat;

a valve member disposed in said passageway of said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member; and

said valve member having a hub with a generally hemi-spherical shape and an annular groove extending radially into said hub and a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position and a flow port extending therein with at least one outlet port having a metered shape a predetermined dwell distance from said valve seat when said valve member is in said closed position and allowing fluid flow past said valve seat when said valve member is in said open position.

14. (CANCELED)

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (ORIGINAL) A check valve as set forth in claim 13 wherein said valve housing has an enlarged opening at one end of said passageway and said valve member has a flange at one end and disposed in said enlarged diameter portion.

19. (ORIGINAL) A check valve as set forth in claim 18 including a spring disposed about said valve member between said flange and surface of the enlarged diameter portion to urge said valve member toward said valve seat.

20. (CURRENTLY AMENDED) A fuel pump comprising:
an outlet member having a first passageway therethrough;
a valve housing disposed in said first passageway of said outlet member, said valve housing having a body portion with a second passageway extending axially therethrough;
a flow tube extending axially from one end of said body portion;
a valve seat disposed adjacent said second passageway and formed on said valve housing adjacent said flow tube, said valve seat having a generally frustaconical cross-sectional shape;

a valve member disposed in said second passageway of said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member;

said valve member having said valve member having a hub with a generally hemispherical shape and an annular groove extending radially therein into said hub;

a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position;

said valve housing having an enlarged opening at one end of said second passageway and said valve member having a flange at one end and disposed in said enlarged diameter portion;

a spring disposed about said valve member between said flange and surface of the enlarged diameter portion to urge said seal and valve member toward said valve seat; and

said valve member having a flow port extending therein with at least one outlet port a predetermined dwell distance from said valve seat when said valve member is in said closed position and allowing fluid flow past said valve seat when said valve member is in said open position.